1,1,2,3-tetrachloropropene NIOSHTIC 1984 3g 7/10/

DEPARTMENT OF HEALTH & HUMAN SERVICES · Public Health Service

FYI-OTS-0784-0330 INITIAL SEQUENCE A

Centers for Disease Control
National Institute for
Occupational Safety & Health
Robert A. Taft Laboratories
4676 Columbia Parkway
Cincinnati OH 45226

June 28, 1984

Mr. T. O'Bryan
Document Control Officer
Information Management Division (TS-793)
Office of Toxic Substances
401 M Street, S. W.
Washington, D.C. 20460

RECEIVED 7/10/84 TOB/CSB

1984 JUL -5 AM 7:57

Dear Mr. O'Bryan:

In response to Frank Kover's request for information on methyl bromide, triethyl phosphate, dimethoxyethyl phthalate, and 1,1,2,3-tetrachloropropene, I am enclosing printouts from appropriate NIOSH databases obtained by Ruth Grubbs, of my staff. Printouts from both NIOSHTIC and the Current Research File (CRF) are included for methyl bromide. However, only the NIOSHTIC printouts are included for the other three chemicals since they did not appear in the CRF.

If you have any questions concerning this material, please let me know.

Sincerely yours,

Kathryn R. Mahaffey

Kathryn R. Mahaffey, Ph.D.
Chief, Priorities and Research
Analysis Branch
Division of Standards Development
and Technology Transfer

Enclosures

NIOSHTIC. 1984. National Institute of Occupational Safety and Health Technical Information Center. FYI-OTS-0784-0330 Initial, Sequence A. Tetrachloropropene. Computer printout. Washington, DC: Office of Toxic Substances, U.S. Environmental Protection Agency.

NIOSH/IC 1 PAGE 6/28/84

TETRACHLOROPROPENE FOR T. O'BRYAN BY R. GRUBBS, 6/26/84

87488 $03
CONTROL: NIOSH-00104527
SOURCE: trans
AUTHOR: Strusevich, E. A., V. N. Fedyanina, O. V. Sadovnik, and V. N. Semenova
TITLE: Effect of Toxic Substances on the Activity of Pancreatic Enzymes in a Hygienic Experiment
REFER1: Gigiena i Sanitariia, No. 7, pages 102-104, 3 references
PUBDATE: 76/00/00

OONCH, TRANS, GISAAA, Metabolism, Laboratory-animals, Exposure-methods, Biochemistry, Dose-response, Standards, Chemical-analysis

65 The effects of ethylene-chlorohydrin (107073) (ETCH) and tetrachloropropene (10436392) (TCP) on pancreatic enzyme activity were studied in rats. Animals were given oral doses of 5, 1, 0.1, or 0.01 milligrams per kilogram (mg/kg) of TCP or 5, 0.5, or 0.05mg/kg of ETCH daily for 6 months. Activity of trypsin and its inhibitor in the blood serum was determined periodically. Both substances caused a dose dependent rise in trypsin activity and reduction in inhibitor. A dose of 0.1mg/kg of TCP increased blood trypsin activity but did not reduce inhibitor activity; a dose of 0.01mg/kg TCP caused no changes. Exposure to ETCH did not cause changes in trypsin secretion and inhibitor content until 3 to 4 months after intoxication began. Trypsin activity had declined and antitrypsin activity had increased 6 months after exposure to ETCH began. TCP was less toxic than ETCH at the lethal concentration but had more pronounced cumulative effects resulting in greater functional disturbances. The authors conclude that exposure to low concentrations of these chemical compounds disturbs the function of the pancreas. They recommend that the functional state of the pancreas be investigated when setting exposures standards for these substances in water. (Russian).